Easidew I.S.
Dew-Point Transmitter
User's Manual



Easidew I.S.

For Kahn Instruments' contact information please go to
www.kahn.com

Contents

Figures

Appendices

Safety

The manufacturer has designed this equipment to be safe when operated using the procedures detailed in this manual. The user must not use this equipment for any other purpose than that stated. Do not apply values greater than the maximum value stated.

This manual contains operating and safety instructions, which must be followed to insure the safe operation and to maintain the equipment in a safe condition. The safety instructions are either warnings or cautions issued to protect the user and the equipment from injury or damage. Use competent personnel using good engineering practice for all procedures in this manual.

Electrical Safety

The instrument is designed to be completely safe when used with options and accessories supplied by the manufacturer for use with the instrument.

Pressure Safety

DO NOT permit pressures greater than the safe working pressure to be applied to the instrument. The specified safe working pressure is 6500 psig (450 barg / 45 MPa). Refer to the Technical Specifications in Appendix A.

Toxic Materials

The use of hazardous materials in the construction of this instrument has been minimized. During normal operation it is not possible for the user to come into contact with any hazardous substance which might be employed in the construction of the instrument. Care should, however, be exercised during maintenance and the disposal of certain parts.

Repair and Maintenance

The instrument must be maintained by Kahn Instruments, Inc.. Refer to www.kahn.com for contact details.

Calibration

The recommended calibration interval for this instrument is 12 months unless it is to be used in a mission-critical application or in a dirty or contaminated environment in which case the calibration interval should be reduced accordingly. The instrument should be returned to the manufacturer, Kahn Instruments Inc., or one of their accredited service agents for re-calibration.

Safety Conformity

This product meets the essential protection requirements of the relevant US and European standards and directives. Further details of applied standards may be found in the Technical Specifications in Appendix A.

Abbreviations

The following abbreviations are used in this manual:

barg	pressure unit (=100 kP or 0.987 atm) (bar gauge)
°C	degrees Celsius
°F	degrees Fahrenheit
DC	direct current
dp	dew point
fps	feet per second
ft-lbs	feet per pounds
g	grams
lbs/in	pounds per inch
μm	micrometer
m/sec	meters per second
mA	milliampere
max	maximum
mm	millimetres
MPa	megapascal
Nl/min	normal liters per minute
Nm	Newton meter
oz	ounces
ppm_V	parts per million by volume
psig	pounds per square inch
RH	relative humidity
scfh	standard cubic feet per hour
V	Volts
Ω	Ohms
ø	diameter
"	inch(es)

Warnings

The following general warning listed below is applicable to this instrument. It is repeated in the text in the appropriate locations.



Where this hazard warning symbol appears in the following sections it is used to indicate areas where potentially hazardous operations need to be carried out.

1 INTRODUCTION

The Easidew I.S. dew-point transmitter has been manufactured, tested and calibrated to the highest available standards and should be in perfect working order, ready for installation into a gas measurement application. If, after reading this manual, there are any questions about the instrument or how to install and operate it, please contact Kahn Instruments. Inc. Refer to www.kahn.com for contact details.

This manual covers the following Easidew I.S. (Intrinsically Safe) dew-point products:

Easidew I.S. with 5/8" UNF thread

Easidew I.S. with 3/4" UNF thread

Easidew I.S. with G 1/2" BSP thread

1.1 Features

The Easidew I.S. dew-point transmitter is a continuous, on-line, 4-20 mA transmitter for the measurement of dew-point temperature or moisture content in air and other non-corrosive gases. It is designed specifically for use within Zone 0, 1 and 2 hazardous areas.

The key features are:

- IECEx, CSA, FM, ATEX certified transmitter for use in hazardous areas
- 5/8" or 3/4" UNF, G1/2" BSP, process connection
- Dew-point or ppmV moisture content
- 2-wire loop powered connection
- Rugged 316 stainless steel IP66 construction
- Measurement ranges -148 to +68°Fdp (-100 to +20°Cdp)

  -166 to +68°Fdp (-110 to +20°Cdp)
- Accuracy ±2°Cdp
- Calibration Certificate (NPL, NIST)

2 INSTALLATION

2.1 Unpacking the Instrument

On delivery, check that all the following standard components are in the packing tube:

- Easidew I.S. Transmitter

  5/8" UNF and G 1/2" BSP version - Bonded seal fitted over threaded part of transmitter body

  OR

  3/4" UNF version - Recessed sensor O-ring seal

- Quantity 3 cable crimps
- Sensor connector
- Packing tube, and foam protectors (not needed for operation - save all the packing materials for the purpose of returning the instrument for re-calibration or any warranty claims)
- Certificate of calibration

NOTE: If any component is not present in the packing box, contact Kahn Instruments immediately.

Unpack the dew-point transmitter packing tube as follows (see *Figure 1).*

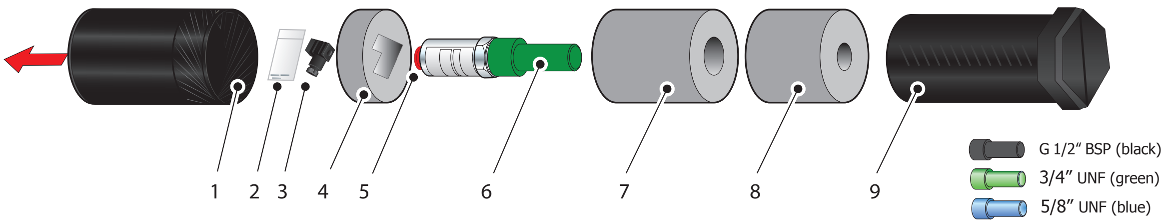


Figure 1 *Transmitter Unpacking Method*

1. Unscrew the cap (1) from the packing tube (9).
2. Remove the bag containing 3 cable crimps (2).
3. Remove the foam block (4) containing the connector (3).
4. Pull out the transmitter (6) from the tube, complete with the two foam covers (7) and (8) and the red protective cap (5).
5. Remove the foam covers from the transmitter but leave the green, blue or black plastic protective cover (6) and the red cap (5) in place until ready for installation.

NOTE: The transmitter sensing element is protected while in transit by a black, green or blue cover containing a small desiccant capsule. The connection pins are protected by a red plastic cap. None of these plastic items are required for the operation of the transmitter.

NOTE: Keep the connector (3) in a safe place until the transmitter is ready for wiring.

2.2 Preparation of the Sensor Cable

The sensor cable is NOT supplied as standard. A cable can be obtained by contacting Kahn Instruments (see www.kahn.com for details).

The crimps supplied must be fitted onto any cable installed into the connector in order to comply with Hazardous Area Certification of the product.

If making a cable assembly it is important that the cable is correctly terminated. See *Figures 3 to 6*.

Cable connection to the Easidew I.S. transmitter is made via the removable connector. Removing the central screw enables the connector terminal block to be removed from the outer housing by using a small screwdriver to pry it off.

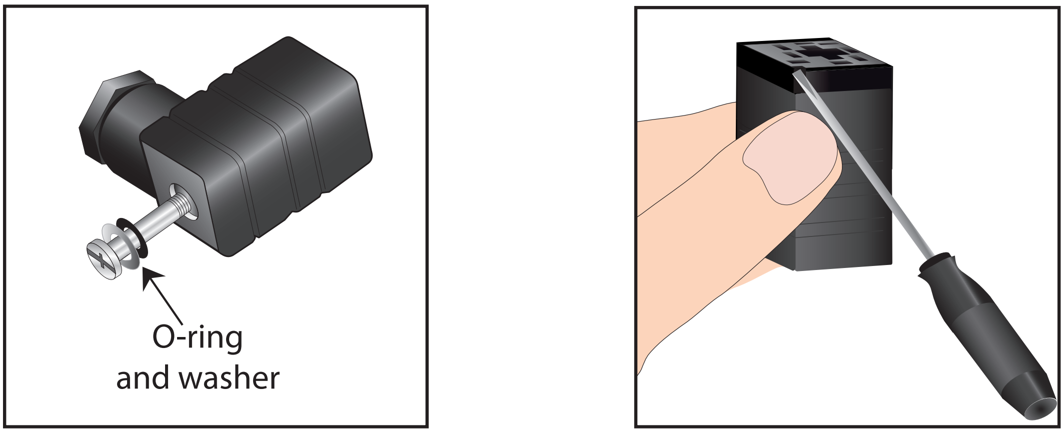


Figure 2 *Connector Terminal Block Removal*

Caution: When removing the central screw insure that the small sealing O-ring and the washer are retained on the screw and are present during re-installation.

NOTE: *Figure 3* to *Figure 6* shown below, should be followed in detail. The crimps should be applied such that there is no possibility of a conductor strand of a core becoming free (see *Figure 4*).

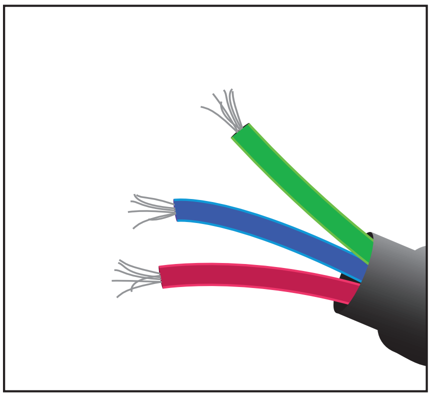


Figure 3 *Bare Wires*

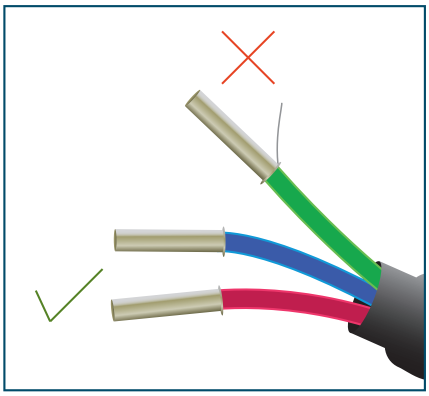


Figure 4 *Crimped Wires*

When the crimp is made it should have a minimum of 2 positions of crimping. After the crimp is made it should be trimmed to a length of 5mm (see *Figure 5)*. When the crimps are installed into the connector terminal block insure they are fully inserted, as shown in *Figure 6*, before tightening the terminal clamping screw.

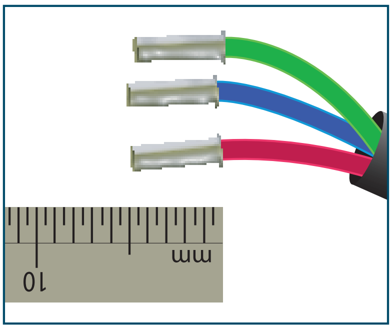


Figure 5 *Cut to 5mm*

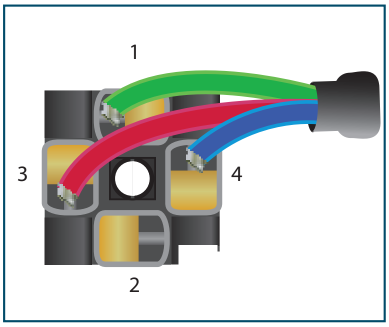


Figure 6 *Connection to Connector Terminal Block*

When all wire connections are made, insure that there is a minimum clearance distance and a minimum creepage distance in air of 0.8" (2mm) between each terminal.

For the transmitter to work properly, and to achieve maximum performance, the sensor cable must be connected to the sensor connector as shown in the drawing below.

Note: The drawing below shows the identity of the connector terminals and wiring connections of the cable supplied by Kahn Instruments.

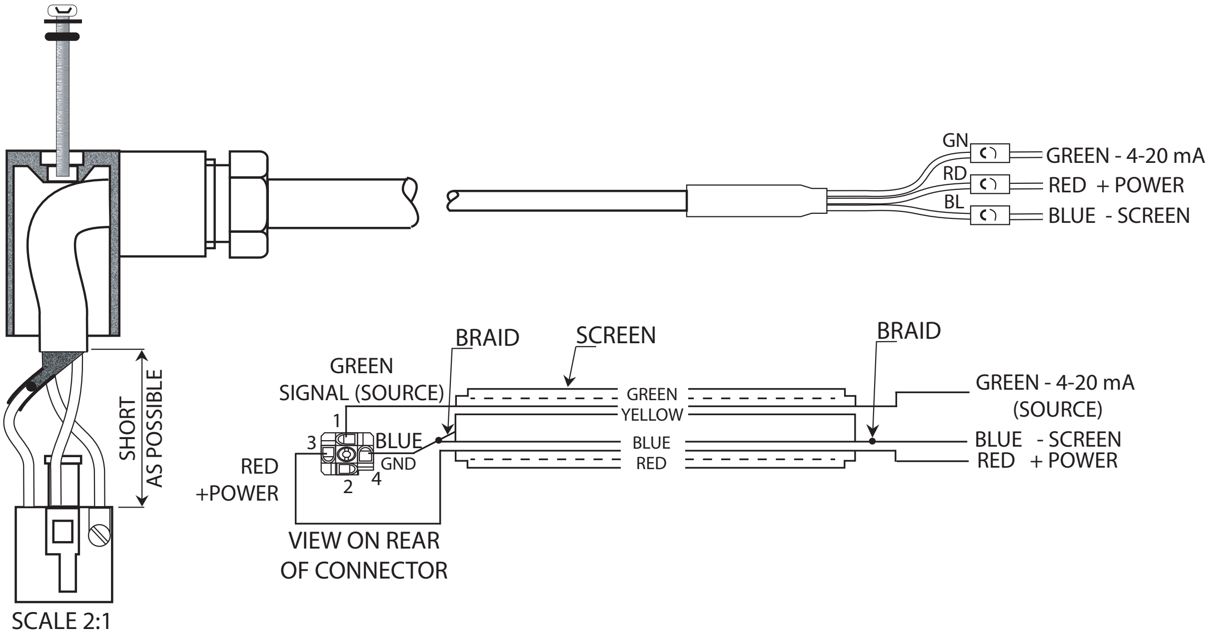


Figure 7 *Wiring Connections*



Always connect the 4-20 mA return signal to a suitable load (see *Figure 7)* before the power is applied. Without this connection, the transmitter may be damaged if allowed to operate for prolonged periods.

2.3 Cable Connection

When installing the connector, and to insure that full ingress protection is achieved, the securing screw (with the O-ring and washer) must be tightened to a minimum torque setting of 3.4 Nm (2.5 ft-lbs). The sensor cable used must be a minimum diameter of 4.6mm (0.2").

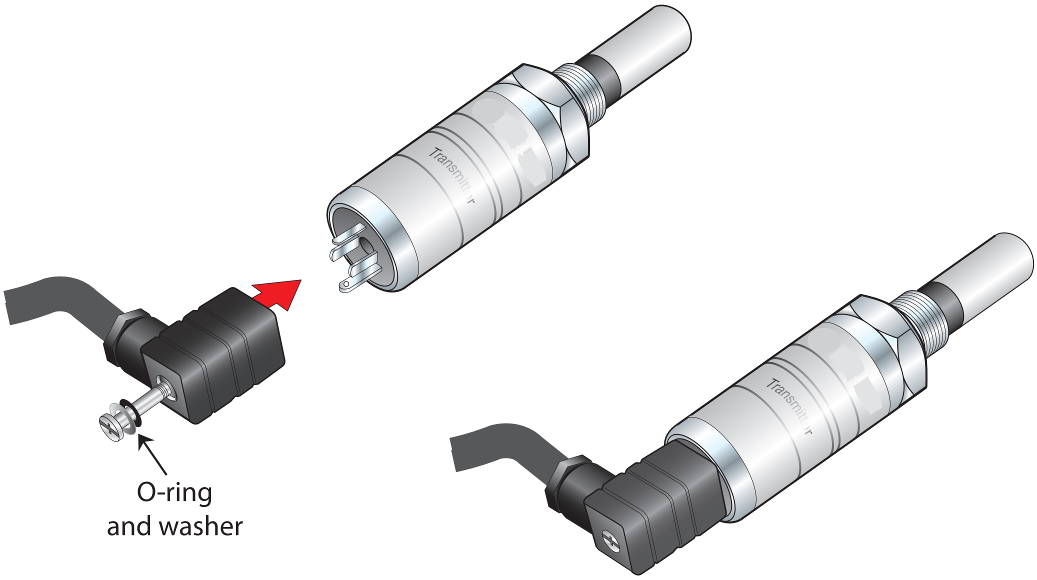


Figure 8 *Connector Installation*

2.4 Electrical Schematic

NOTE: The screen/shield should be connected for maximum performance and to avoid interference.

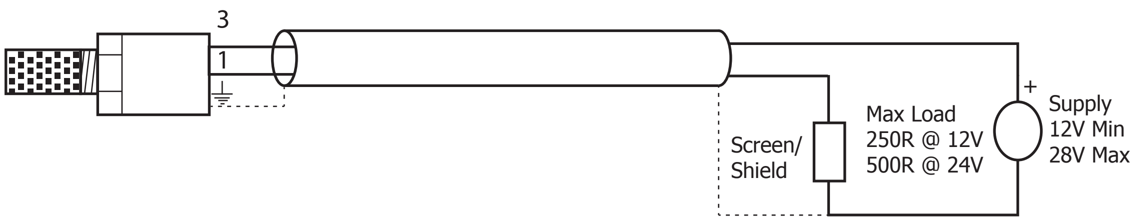


Figure 9 *2-Wire Connection Diagram*

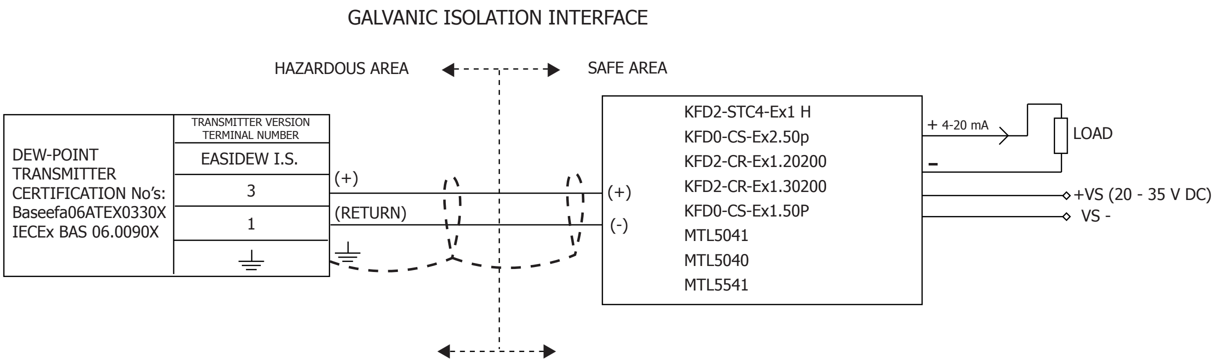


Figure 10 *Electrical Connections*

2.4.1 Electrical Boundaries

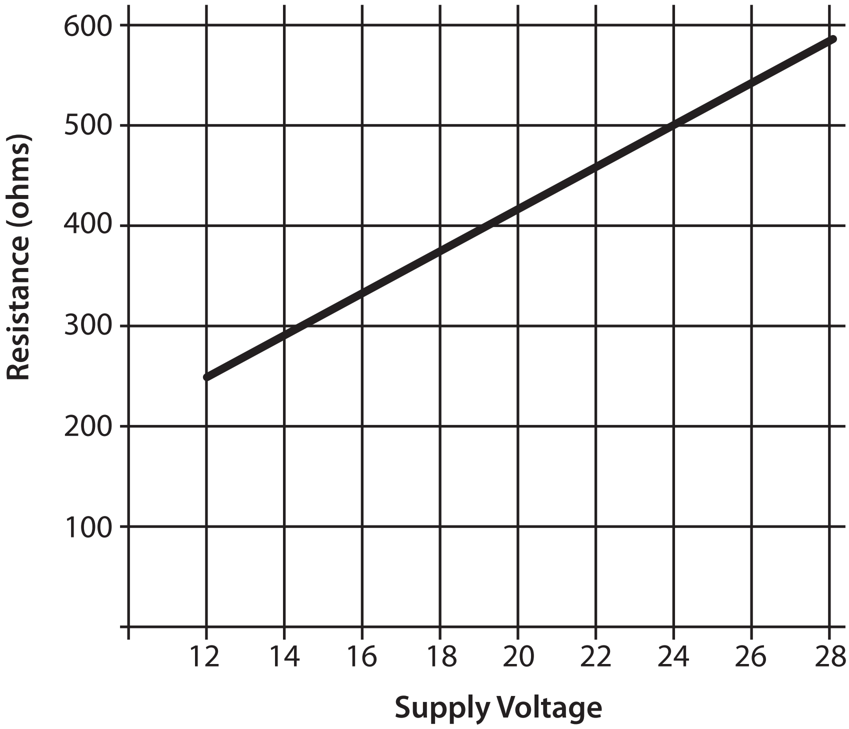


Figure 11 *Maximum Load of Easidew - Including Cable Resistance*

2.5 Transmitter Mounting

Prior to installation of the transmitter, unscrew and remove the black, green or blue plastic cover and retain for future use. Take care to prevent any contamination of the sensor before installation **(handle the transmitter by the main body only, avoiding contact with the sensor guard).**

The Easidew I.S. can be mounted either into a flow-through sensor sampling block (optional) or directly into a pipe or duct. It can be operated at pressures of up to 6500 psig (450 barg / 45 MPa) when fitted with the bonded seal or O-ring provided.

The recommended gas flow rate, when mounted in the optional sampling block, is 2.1 to 10.6 scfh (1 to 5 Nl/min). However, for direct insertion applications, gas flow can be from static to 32.8 fps (10 m/sec).

NOTE: Pass the seal over the mounting thread and assemble into the sampling location, by hand, using the wrench flats only. DO NOT grip and twist the sensor cover when installing the sensor.

When installed, fully tighten using a wrench until the seal is fully compressed and to the following torque settings:

- 5/8" - 18 UNF 22.5 ft-lbs (30.5 Nm)
- 3/4" - 16 UNF 40 Nm (29.5 ft-lbs)
- G 1/2" BSP 56 Nm (41.3 ft-lbs)

2.5.1 Transmitter Mounting - Sample Block (Optional)

The following procedure must be carried out by a qualified installation engineer.

To mount the transmitter into the sensor block (preferred method), proceed as follows, refer to *Figure 12.*

1. Insure that the green, blue or black protective cover (2), and its desiccant capsule (2a), have been removed from the tip of the transmitter.
2. G 1/2" and 5/8" Versions - Insure that the bonded seal (2) is over the threaded part of the transmitter body.

   3/4" Version - Insure the O-ring is fully seated in the recess.

Under no circumstances should the sensor guard be handled with the fingers.

3. Screw the transmitter (1) into the sample block (3) and tighten to the appropriate torque setting (see Section 2.5). **NOTE: Use the flats of the hexagonal nut and not the sensor body.**
4. Fit the transmitter cable/connector assembly to the plug located on the base of the transmitter and tighten the securing screw (see Section 2.3).

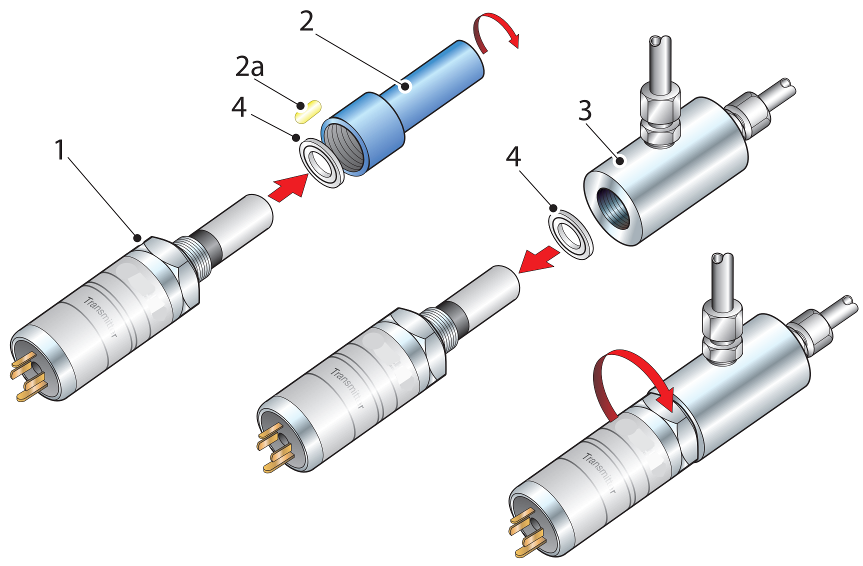


Figure 12 *Transmitter Mounting*

2.5.2 Transmitter Mounting - Direct Pipeline Connection

The transmitter may be directly mounted into a pipe or duct as shown in *Figure 13.*

Caution: Do not mount the transmitter too close to the bottom of a bend where any condensate in the pipeline might collect and saturate the probe.

The pipe or duct will require a thread to match the transmitter body thread. Mounting dimensions are shown in *Figure 13.* For circular pipework, to insure the integrity of a gas tight seal, a mounting flange will be required on the pipe or tubing in order to provide a flat surface to seal against.

The following procedure must be carried out by competent personnel.

1. Insure that the protective cover (and its desiccant capsule) has been removed from the tip of the transmitter.

WARNING: Under no circumstances should the sensor guard be handled with the fingers.

2. G 1/2" and 5/8" Versions - Insure that the bonded seal (2) is over the threaded part of the transmitter body.

   3/4" Version - Insure the O-ring is fully seated in the recess.

3. Screw the transmitter (3) into the pipe (1). Tighten enough to obtain a gas tight seal. **NOTE: Do not overtighten or the thread on the pipe or tubing may be stripped.**

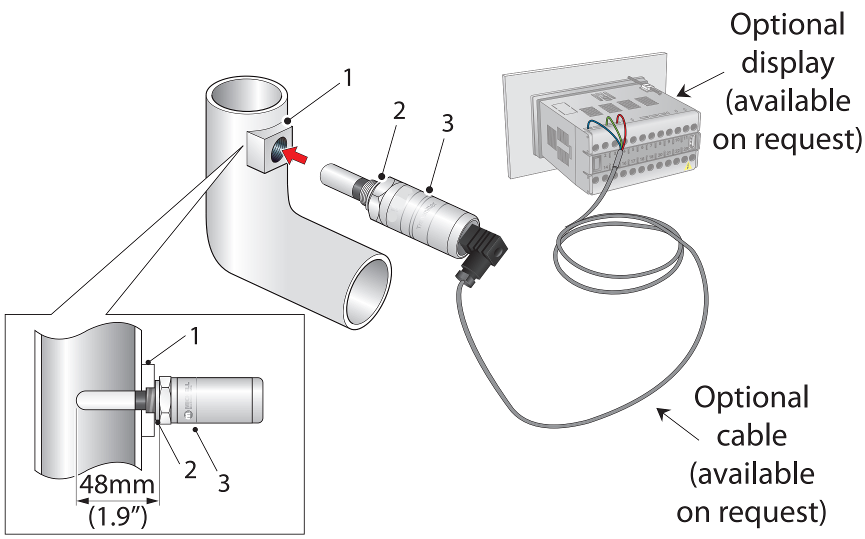


Figure 13 *Transmitter Mounting - Pipe or Duct*

2.5.3 Transmitter Mounting - With Additional Process Connection Adapter

Applicable to the Easidew I.S. 5/8" Version ONLY

The following procedure must be carried out by a qualified installation engineer.

To mount the adapter into the transmitter, proceed as follows (see *Figure 14)* :

1. Insure that the protective cover (2), and its desiccant capsule (2a), have been removed from the tip of the transmitter.
2. Place the bonded seal (3) over the threaded part of the transmitter body.
3. Screw the adapter (4) onto the threaded part of the transmitter and tighten to 22.5 ft-lbs (30.5 Nm). **NOTE: Use the flats of the hexagonal nut and not the sensor body.**

WARNING: Under no circumstances should the sensor guard be handled with the fingers.

4. Screw the transmitter (1) with its seal (3) and adapter (4) into the sample block (see Section 2.5.1 or see Section 2.5.2) and fully tighten using a wrench until the seal is fully compressed and to the following torque settings:

G 1/2" BSP	41.3 ft-lbs (56 Nm)
3/4" - 16 UNF `	29.5 ft-lbs (40 Nm)
1/2" NPT	Use a suitable sealant e.g. PTFE tape using correct taping procedures

NOTE: **Use the flats of the hexagonal nut and not the sensor body.**

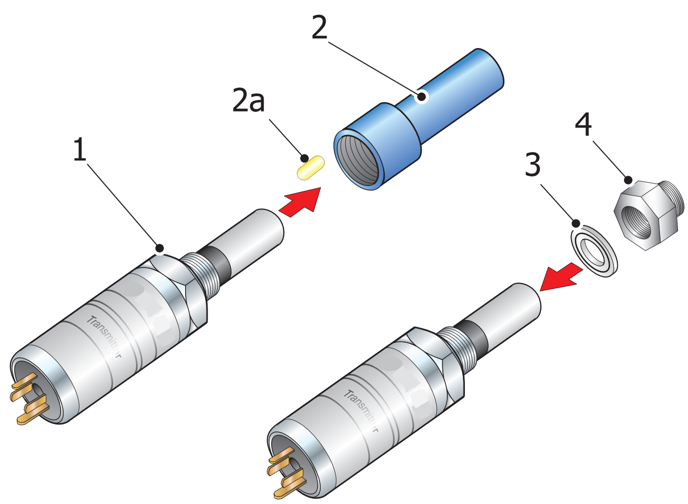


Figure 14 *Transmitter Mounting with Adapter*

3 OPERATION

Operation is very simple, assuming the following installation techniques are adhered to:

Sampling Hints

Be Sure the Sample is Representative of the Gas Under Test:

The sample point should be as close to the critical measurement point as possible. Also, never sample from the bottom of a pipe as entrained liquids may be drawn into the sensing element.

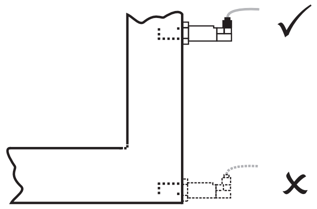


Figure 15 *Installation Location*

Minimize Dead Space in Sample Lines:

Dead space causes moisture entrapment points, increased system response times and measurement errors, as a result of the trapped moisture being released into the passing sample gas and causing an increase in partial vapor pressure.

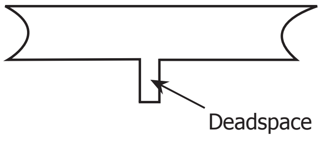


Figure 16 *Indication of Dead Space*

Remove Any Particulate Matter or Oil from the Gas Sample:

Particulate matter at high velocity can damage the sensing element and similarly, at low velocity, they may 'blind' the sensing element and reduce its response speed. If particulate, such as degraded desiccant, pipe scale or rust is present in the sample gas, use an in-line filter, as a minimum level of protection. For more demanding applications Kahn Instruments offers a range of sampling systems (for more information contact www.kahn.com).

Use High Quality Sample Tube and Fittings:

Kahn Instruments recommends that, wherever possible, stainless steel tubing and fittings should be used. This is particularly important at low dew points since other materials have hygroscopic characteristics and adsorb moisture on the tube walls, slowing down response and, in extreme circumstances, giving false readings. For temporary applications, or where stainless steel tubing is not practical, use high quality thick walled PTFE tubing.

Position Transmitter away from Heat Source:

It is recommended, as good instrumentation practice, that the transmitter is placed away from any heat source to avoid adsorption/desorption.

4 MAINTENANCE

Calibration

Routine maintenance of the Easidew I.S. is confined to regular re-calibration by exposure of the transmitter to sample gases of known moisture content to insure that the stated accuracy is maintained. Calibration services traceable to the US *National Institute of Standards and Technology* (NIST) are provided by Kahn Instruments.

Kahn Instruments offers a variety of re-calibration and service exchange schemes to suit specific needs. A Kahn representative can provide detailed, custom advice (refer to www.kahn.com for details of Kahn Instruments' contact information).

The following procedure must be carried out by a qualified installation engineer.

Sensor Guard Replacement

The sensor is supplied with either a white HDPE or a stainless steel guard. The method of replacement is the same for both types.

HDPE Guard

The HDPE guard provides <10µm protection to the dew-point sensor. It is designed to show any contamination and the guard should be changed if the surface becomes discolored.

When replacing the guard, care should be taken to handle the guard by the bottom part only. Replacement guards (EA2-HDPE) - pack of 10 - can be obtained by contacting Kahn Instruments (www.kahn.com) or your local distributor.

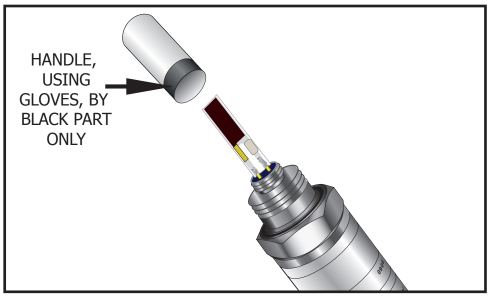


Figure 17 *Replacement of HDPE Guard*

Stainless Steel Guard

The stainless steel guard provides <80µm protection to the dew-point sensor. It is designed to show any contamination and the guard should be changed if the surface becomes discolored.

When replacing the guard, care should be taken to handle the guard by the bottom part only. A replacement guard (SSG) can be obtained by contacting Kahn Instruments (www.kahn.com).

Bonded Seal

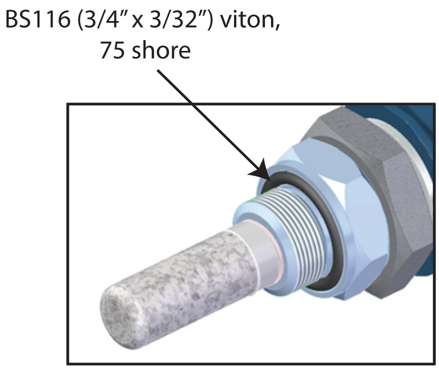
If the installed bonded seal gets damaged or lost, a pack of 5 replacement bonded seals (1/2-BS (for G 1/2 -BSP) or 5/8-BS (for 5/8" -18 UNF)) can be obtained by contacting Kahn Instruments, or your local distributor.

4.1 O-Ring Replacement

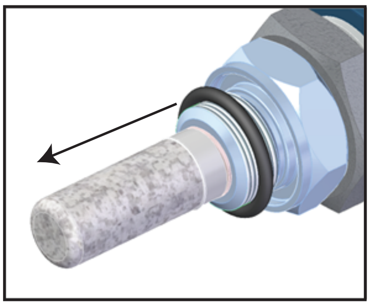
If the installed O-ring gets damaged or lost, a pack of 5 replacement O-rings (3/4-OR (for 3/4" - 16 UNF)) can be obtained by contacting Kahn Instruments.

Do not touch the filter with bare hands

1. Identify the O-ring to be removed, as shown below.



2. Carefully slide tweezers, thin bladed screwdriver or a blunt needle under the outer edge of the O-ring. **NOTE: Take care not to scratch any of the surfaces of the surrounding metal component.**
3. Move the tool around the circumference to assist the extraction process. Slide the O-ring clear of the thread and filter.



4. Make sure the groove has no scratches and is free from grease, dirt or debris. Slide the new O-ring over the filter and thread and into the groove. **NOTE: Do not touch the filter with bare hands.**

Appendix A

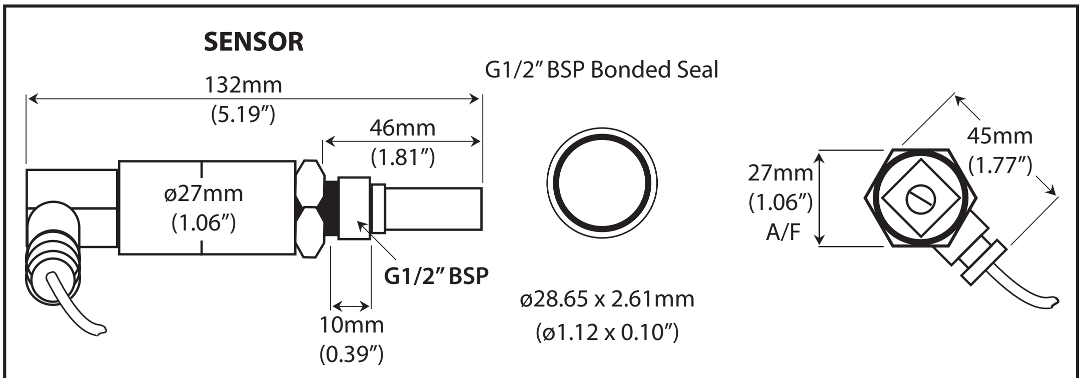
Technical Specifications

Appendix A Technical Specifications

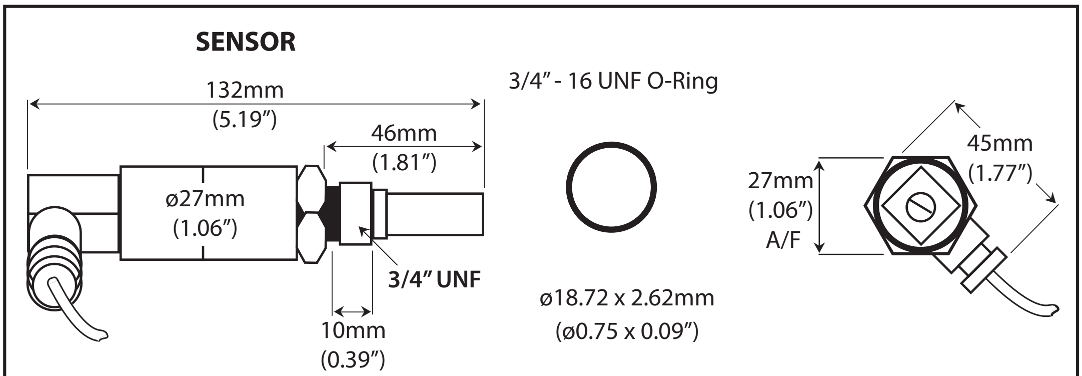
Performance	
Measurement Range (dew point)	-148 to +68°Fdp (-100 to +20°Cdp) -166 to +68°Fdp (-110 to +20°Cdp)
Accuracy (dew point)	±3.6°Fdp (±2°Cdp)
Repeatability	0.9°Fdp (0.5°Cdp)
Response Time	5 mins to T95 (dry to wet)
Calibration	13-point calibration with traceable 7-point calibration certificate
Electrical Specifications	
Output Signal	4-20 mA (2-wire connection current source) User-configurable over range
Output	Dew point or moisture content for ppm_V
Analog Output Scaled Range	Dew point: -148 to +68ºF (-100 to +20ºC) OR Moisture content in gas: 0 - 3000 ppm_V Non-standard available upon request
Supply Voltage	12 to 28 V DC
Load Resistance	Max 250 Ω @ 12 V (500 Ω @ 24 V)
Current Consumption	20 mA max
CE Marked	Certified
Operating Specifications	
Operating Temperature	-40 to +158ºF (-40 to +70ºC)
Operating Pressure	6500 psig (450 barg / 45 MPa) max Qualified over-pressure rating: (2 x operating pressure) 13053 psig (900 barg / 90 MPa)
Flow Rate	2.1 to 10.6 scfh (1 to 5 Nl/min) mounted in standard sampling block 0 to 32.8 fps (0 to 10 m/sec) direct insertion
Temperature Coefficient	Temperature compensated across operating temperature range
Mechanical Specifications	
Ingress Protection	NEMA 4 in protection accordance with standard NEMA 250-2003 IP66 in accordance with standard BS EN60529:1992
Housing Material	316 stainless steel
Dimensions	Transmitter plus connector: L=5.19" x ø 1.77" (132mm x ø 45mm)
Sensor Guard	Standard: HDPE Guard < 10µm Optional: 316 stainless steel sintered guard < 80µm
Process Connection & Material	G 1/2" BSP; 3/4" - 16 UNF; 5/8" - 18 UNF Material - 316 stainless steel
Weight	5.29oz (150g)
Interchangeability	Fully interchangeable transmitter
Electrical Connection	Hirschmann GDS series (DIN 4350-C)
Diagnostic Conditions (factory programmed)	**Condition** / **Output** Sensor fault / 23 mA Under-range dew point / 4 mA Over-range dew point / 20 mA

Approved Galvanic Isolators	KFD2-CR-EX1.20200 KFD2-CR-EX1.30200 KFD0-CS-EX1.50P	KFD0-CS-EX2.50P KFD2-STC4-EX1.H MTL5041, MTL5040
Hazardous Area Certification		
Certification Codes	**ATEX** II 1G Ex ia IIC T4 Ga (-20°C to +70°C) **IECEx** Ex ia IIC T4 Ga (-20°C to +70°C) **TC TR Ex** 0Ex ia IIC T4 Ga (-20°C to +70°C) **FM** Class I, Division 1, Groups A B C D, T4 **CSA** Class I, Division 1, Groups A B C D, T4	

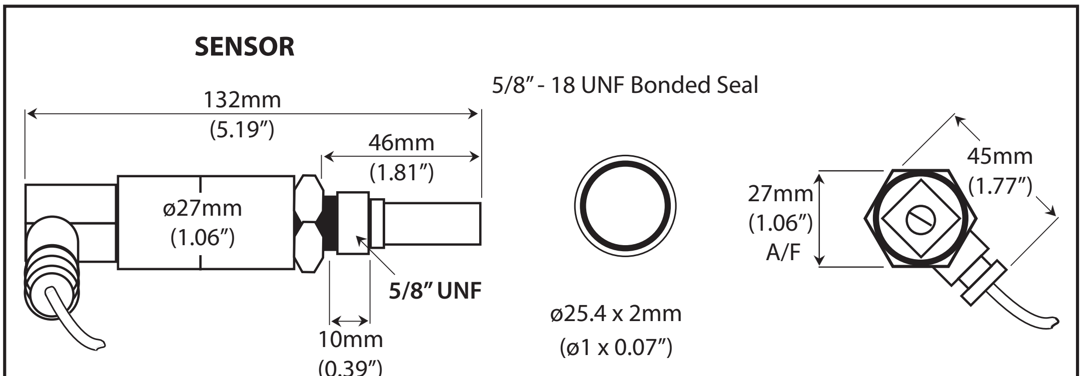
A.1 Dimensions



G1/2" Process Connection



3/4" Process Connection



5/8" Process Connection

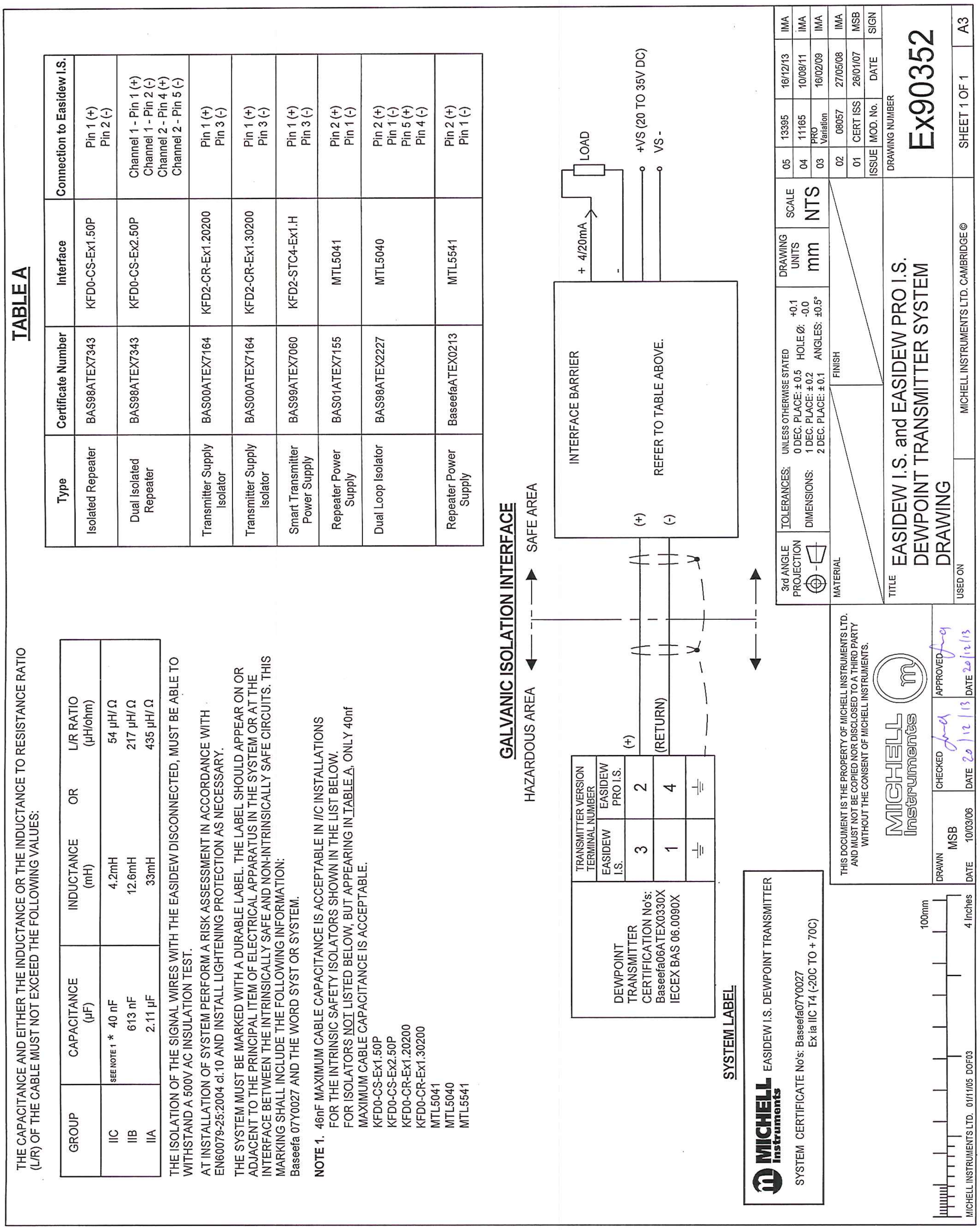
Figure 18 *Dimensions*

Appendix B

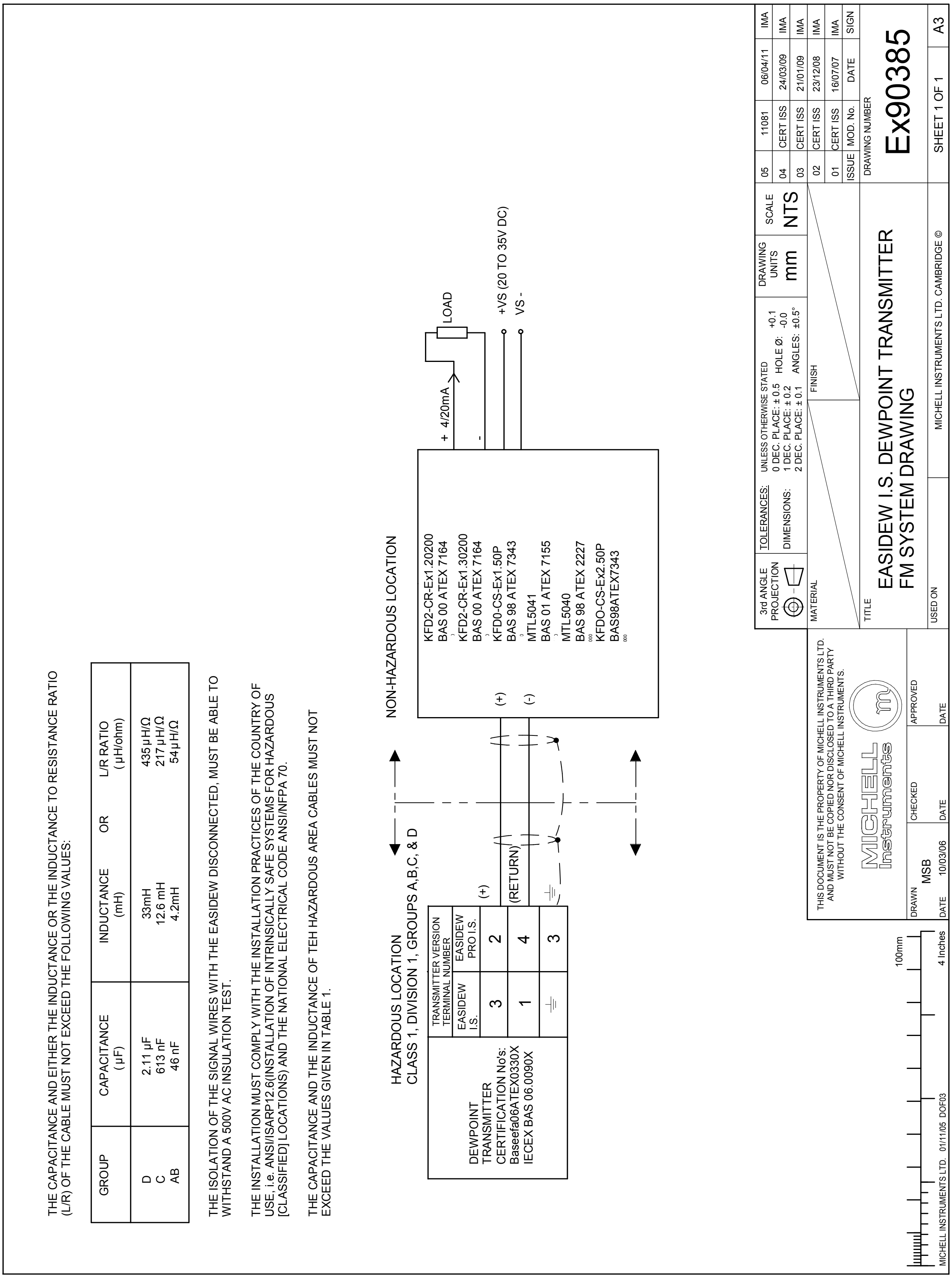
System Drawings

Appendix B System Drawings

B.1 Baseefa Approved System Drawing



B.2 FM Approved System Drawing



B.3 CSA Approved System Drawing

THE CAPACITANCE AND EITHER THE INDUCTANCE OR THE INDUCTANCE TO RESISTANCE RATIO (L/R) OF THE CABLE MUST NOT EXCEED THE FOLLOWING VALUES:

GROUP	CAPACITANCE (μF)	INDUCTANCE (mH) OR	L/R RATIO (μH/ohm)
AB	46 nF	4.2mH	54 μH/Ω
C	613 nF	12.6 mH	217μH/Ω
D	2.11μF	33mH	435μH/Ω

THE ISOLATION OF THE SIGNAL WIRES WITH THE EASIDEW DISCONNECTED, MUST BE ABLE TO WITHSTAND A 500V AC INSULATION TEST.

THE INSTALLATION MUST COMPLY WITH THE INSTALLATION PRACTICES OF THE COUNTRY OF USE. i.e. ANSI/ISA RP12.6 (INSTALLATION OF INTRINSICALLY SAFE SYSTEMS FOR HAZARDOUS [CLASSIFIED] LOCATIONS) AND THE NATIONAL ELECTRICAL CODE ANSI/NFPA 70.

THE CAPACITANCE AND THE INDUCTANCE OF THE HAZARDOUS AREA CABLES MUST NOT EXCEED THE VALUES GIVEN IN TABLE 1

Intrinsically safe(entity), Class 1, Div1, Group A,B,C,D
Hazardous Location Installations

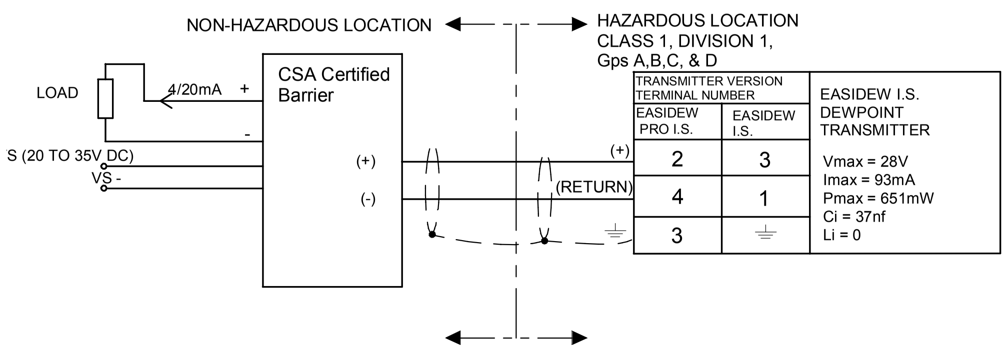
1) Control room equipment may not use or generate over 250Vrms
2) Wire all circuits for power supply per CEC Part 1.
3) Use only entity approved safety barrier or other associated equipment that satisfy the following conditions:

$V_{CG} \leq V_{max}$, $I_{SC} \leq I_{MAX}$, $C_a \geq C_i + C_{CABLE}$, $L_a \geq L_i + L_{CABLE}$

Transmitter entity parameters are as follows:

V max < 2.8Vdc
I max < 93mA
Ci = 37nF
Li = 0uH

4) WARNING: SUBSTITUTION OF COMPONENTS MAY IMPARE INTRINSIC SAFETY.
5) Ex ia is defined as Intrinsically Safe.



Type	Certificate Number	Interface	Connection to Easidew I.S.
Isolated Repeater	BAS98ATEX7343 UL Canada E106378CUL	KFD0-CS-Ex1.50P	Pin 1 (+) Pin 2 (-)
Dual Isolated Repeater	BAS98ATEX7343 UL Canada E106378CUL	KFD0-CS-Ex2.50P	Channel 1 - Pin 1 (+) Channel 1 - Pin 2 (-) Channel 2 - Pin 4 (+) Channel 2 - Pin 5 (-)
Transmitter Supply Isolator	BAS00ATEX7164 UL Canada E106378CUL	KFD2-CR-Ex1.20200	Pin 1 (+) Pin 3 (-)
Transmitter Supply Isolator	BAS00ATEX7164 UL Canada E106378CUL	KFD2-CR-Ex1.30200	Pin 1 (+) Pin 3 (-)
Smart Transmitter Power Supply	BAS99ATEX7060 UL Canada E106378CUL	KFD2-STC4-Ex1.H	Pin 1 (+) Pin 3 (-)

3rd ANGLE PROJECTION

TOLERANCES: UNLESS OTHERWISE STATED
DIMENSIONS: 0 DEC. PLACE: ± 0.5; 1 DEC. PLACE: ± 0.2; 2 DEC. PLACE: ± 0.1; HOLE Ø: +0.1 -0.0; ANGLES: ±0.5°

DRAWING UNITS: mm
SCALE: NTS

ISSUE	MOD. No.	DATE	SIGN
06	11081	06/04/11	IMA
05	CERT ISS	15/06/09	IMA
04	CERT ISS	25/03/09	IMA
03	CERT ISS	16/06/08	IMA
02	CERT ISS	13/06/08	IMA

MATERIAL
FINISH

MICHELL Instruments

TITLE: EASIDEW I.S. & EASIDEW PRO I.S. DEWPOINT TRANSMITTER SYSTEM DRAWIN. CSA

DRAWING NUMBER: Ex90385CSA

DRAWN: MSB DATE: 10/03/06
CHECKED DATE
APPROVED DATE
USED ON

SHEET 1 OF 1 A3

100mm
4 Inches
MICHELL INSTRUMENTS LTD. 01/11/05 DOF03

Appendix C

Hazardous Area Certification

Appendix C Hazardous Area Certification

The Easidew I.S is certified compliant to the ATEX Directive (94/9/EC), and IECEx for use within Zone 0, 1 and 2 hazardous areas and has been assessed so by Baseefa Ltd (Notified Body 1180).

The Easidew I.S is certified compliant to the North American Standards (USA and Canada) for use within Class I, Division 1, Groups A, B, C & D hazardous locations and has been assessed so by CSA and FM.

C.1 Product Standards

This product conforms to the Standards:

EN60079-0:2012	IEC60079-0:2011
EN60079-11:2012	IEC60079-11:2011
FM Class 3600:1998	CAN/CSA-C22.2 No. 0-10
FM Class 3610:2007	CAN/CSA-C22.2 No. 157-92
FM Class 3810:2005	C22.2 No. 142-M1987

C.2 Product Certification

This product is attributed with the product certification codes:

ATEX & IECEx
II 1G Ex ia IIC T4 Ga (-20°C to +70°C)

North American
IS, Class I, Division 1, Groups A, B, C & D, T4

C.3 Global Certificates/Approvals

ATEX	Baseefa 06ATEX0330X
ATEX System	Baseefa 07Y0027
IECEx	IECEx BAS 06.0090X
CSA	2013218
FM	3030238
TC TR Ex	RU C-GB. ГБ05.B.00229

These certificates can be viewed or downloaded from our website at:
http://www.kahn.com

C.4 Terminal Parameters

Ui	= 28 V
Ii	= 93 mA
Pi	= 651 mW
Ci	= 37 nF
Li	= 0

C.5 Special Conditions of Use

1. The wiring connections to the free socket must be made via crimped connectors in such a way that all the strands of the wire used are held securely by the crimp.
2. The plastic plug and socket create a potential for electrostatic discharge so must not be rubbed with a dry cloth or cleaned with solvents.
3. The Easidew I.S. Dew-Point Transmitter does not withstand the 500 V AC insulation test to frame. This must be taken into account when installing the equipment.

C.6 Maintenance and Installation

The Easidew I.S. must only be installed by suitably qualified personnel and in accordance with the instructions provided and the terms of the applicable product certificates.

Maintenance and servicing of the product must only be carried out by suitably trained personnel or returned to Kahn Instruments.

Appendix D

EC Declaration of Conformity

Appendix D EC Declaration of Conformity

MICHELL Instruments

EC Declaration of Conformity

Manufacturer: Michell Instruments Limited

Address: 48 Lancaster Way Business Park
Ely, Cambridgeshire
CB6 3NW. UK.

CE

Equipment Type: **Easidew I.S. Dew-point Transmitter**

<u>Directive 94/9/EC ATEX</u>

Provisions of the Directive fulfilled by the Equipment:

Group II Category 1G Ex ia IIC T4 -20°C ≤ Ta ≤ +70°C

Notified Body for EC-Type Examination and Production (QAN):

Baseefa, Buxton. UK. Notified Body No. 1180

EC-Type Examination Certificate:

Baseefa06ATEX0330X/3

Standards used:

EN 60079-0:2012
EN60079-11:2012

<u>IECEx</u>

Certificate of Conformity No.

IECEx BAS 06.0090X (Issue No. 3) Ex ia IIC T4 (-20°C ≤ Ta ≤ +70°C)

IEC60079-0:2011
IEC60079-11:2011

<u>Other Directives</u>

2004/108/EC EMC Directive
2006/95/EC Low Voltage Directive
Is in conformity with the following Standard(s) or Normative Document(s):
EN61326-1:2006 *Electrical equipment for measurement, control and laboratory use - EMC requirements.*

On behalf of the above named company, we the manufacturer declare under our sole responsibility that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.



Andrew M.V. Stokes, Technical Director
October 2012

ECD Easidew IS Issue 04

http://www.kahn.com